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ABSTRACT

This final report is a general description of the activities of the Demonstration and Research Center for Early Education (DARCEE), an Appalachian preschool program for disadvantaged children. Included in the document are: a general overview of the program, histories of the three Early Training Centers, and objectives and publications of the DARCEE Information Office. DARCEE's direct service has been to demonstrate research, and train individuals to promote the educability of young children from low income homes. DARCEE has worked intensively with 135 families in periods varying from 8 months to 2 1/2 years. Most of these families (with the exception of 25 mothers of infants) have had several children present in the home. In addition, 140 children have been enrolled in DARCEE classroom programs for periods of one year each. The report of the dissemination office, which includes writings, public presentations, and mention of the 4500 visitors, shows the broader impact of DARCEE. The work on the diffusion of training effects within a family, and above all, work with parents, have suggested cost-efficient training models. (Author/MS)

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Final Report

to the

Office of Economic Opportunity

for

Grant CG 9174

December 15, 1970

Demonstration and Research Center for Early Education
George Peabody College for Teachers
Nashville, Tennessee 37203

PS 009003

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FOREWORD

This final report herein presented is a general description of the activities of the Demonstration and Research Center for Early Education during the year of funding on Grant CG9174. The final financial report will be sent in by the Business Office at Peabody College.

Susan W. Gray, Director
Demonstration and Research
Center for Early Education

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GENERAL OVERVIEW

The Demonstration and Research Center for Early Education (DARCEE) at Peabody College was funded on December 31, 1965 by the Office of Economic Opportunity under Grant Tennessee CAP 9174. Prior to that time it had received a limited amount of funding from the Office of Education for research on intervention with young children. The Office of Economic Opportunity grant made it possible to realize the goal of a demonstration and research and training center for the central mission of improving the educability of young children from low income homes. The focus of this center was at that time, and still is, on the Southeast region of the United States.

During the first year of funding of the Demonstration and Research Center by the Office of Economic Opportunity, all funding was under a single grant-Tennessee CAP 9174. During the next year, however, the funding was split into two grants, 9174 which carried forward the demonstration and research endeavors, and 9995 which involved the training aspects of DARCEE. For this reason the final report in these pages concentrates on the demonstration and research activities. Obviously, even after the first year, there has been a great deal of reciprocal influence and activity as well between the persons and situations funded by one grant and by the other.

DARCEE, located in Nashville, Tennessee, is in a strategic location for the fulfillment of this mission. Within a hundred miles of Nashville one reaches the southern end of Appalachia in one direction or the Mississippi Delta in the other. Within the county in which Nashville is located, one finds situations of those of the southern highlands; there are urban and rural low income groups, both Negro and white. To the north and east of Nashville one finds the transitional economy characteristic of a region in

the process of becoming industrialized. It has most of the problems of a displaced agricultural economy and the dislocations engendered by industries no longer looking for a strong back but rather for deft fingers and adaptability.

Although improving the educability of young children from these varied low income environments is hardly the whole solution to the problem of poverty, it is a necessary component of any solution that would have impact within a generation. Research continues to indicate that the early years of life have effects extremely difficult to reverse. These effects may either handicap or give privileged status to the child in the process of becoming appropriately socialized for life in the last third of the twentieth century. It is within this pliable period of life that we see most chance for lasting change; hence our central mission at DARCEE.

DARCEE's physical presence consists of a small complex of buildings on the Peabody campus. There is a central facility which houses the offices and work space of the training staff and the materials preparation spaces. The funds for this building were provided by OEO with some supplementary funds from Peabody. There is a demonstration center for work with young children, which runs a year-long program for four-year-olds; there is a third building, built with funds from Peabody, which serves as additional training space and as the location of our various institutes and workshops. All of these buildings are portable shells with the interiors designed according to our needs.

There have been, in addition, two other demonstration centers for work with young children, built with funds from OEO. Both of these buildings are similar in construction to the campus center. One currently is located on the grounds of a large housing project in north Nashville; the other is on the grounds of the public school at Fairview, Tennessee. This last center draws

its children from a deprived rural group living in the hill country of the Highland Rim of the Nashville Basin. The region has much in common with Appalachia, but is only 22 miles from the Peabody campus. The recently completed Human Development Laboratory on the Peabody campus, adjacent to the DARCEE complex, also houses a part of our research staff.

DARCEE over the years has mounted a large program of research, demonstration, and training. The attached layout sheet shows the extent of these activities. Our overarching purpose in all of these has been to shorten the gap between research and practice. We believe that the best of places in which to conduct research and development activities related to improving the educability of young children is in a center where there are major concerns with demonstration and dissemination.

At a time when so much public interest and so many Federal programs are focusing upon early education, many of the professionals and paraprofessionals trying to fill the demand for teachers for privately and Federally sponsored programs are inexperienced in this field.

The DARCEE curriculum, which was first developed and tested during our Vertical Diffusion-Mothers Study, is continually reevaluated, tested, and improved through day-to-day use in our Early Training Center. Methods of adapting the original curriculum for use with other groups (i.e., rural children, or younger children) are continually evolved. We have demonstrated our curriculum and teaching methods for thousands of visitors intimately involved in or responsible for programs in early childhood education.

Gimmicky, faddy programs for children have no place in a center such as ours. Instead, programs should represent the most carefully studied and validated approaches to intervention with young children from low income circumstances. Our intervention research consists of putting together "research

DEMONSTRATION AND RESEARCH CENTER FOR EARLY EDUCATION

RVENTION STUDIES

Mother training

Young children 3-5

Infants

LOGICAL STUDIES

Mother-child interaction

BASIC CHILD DEVELOPMENT STUDIES

Character development

Cognitive development and style

Cross-cultural Comparisons

Nutritional Studies

TRAINING EFFECTIVENESS

Subprofessional

Teachers and supervisors

Research

onstration

Y TRAINING CENTER

Peabody Campus

Training

SHORT-TERM PROGRAMS

Special-purpose training

Consultative services

Inservice workshops

SEMINATION

Research publications

Information publications

Newsletter

Slide sequences

Conferences

George Peabody College for Teachers
Nashville, Tennessee 37203

MATERIALS DEVELOPMENT

Teaching materials

Curriculum materials

packages" from the most promising developments in the field and of carefully studying the effects of this "packaging" in our centers for children, as it affects their performance in the centers and subsequently in their public schooling. In a similar way we have been using with mothers approaches which have grown out of the earlier research at Peabody and the work of others. Our new combinations of approaches are in turn assessed and modifications made as appropriate.

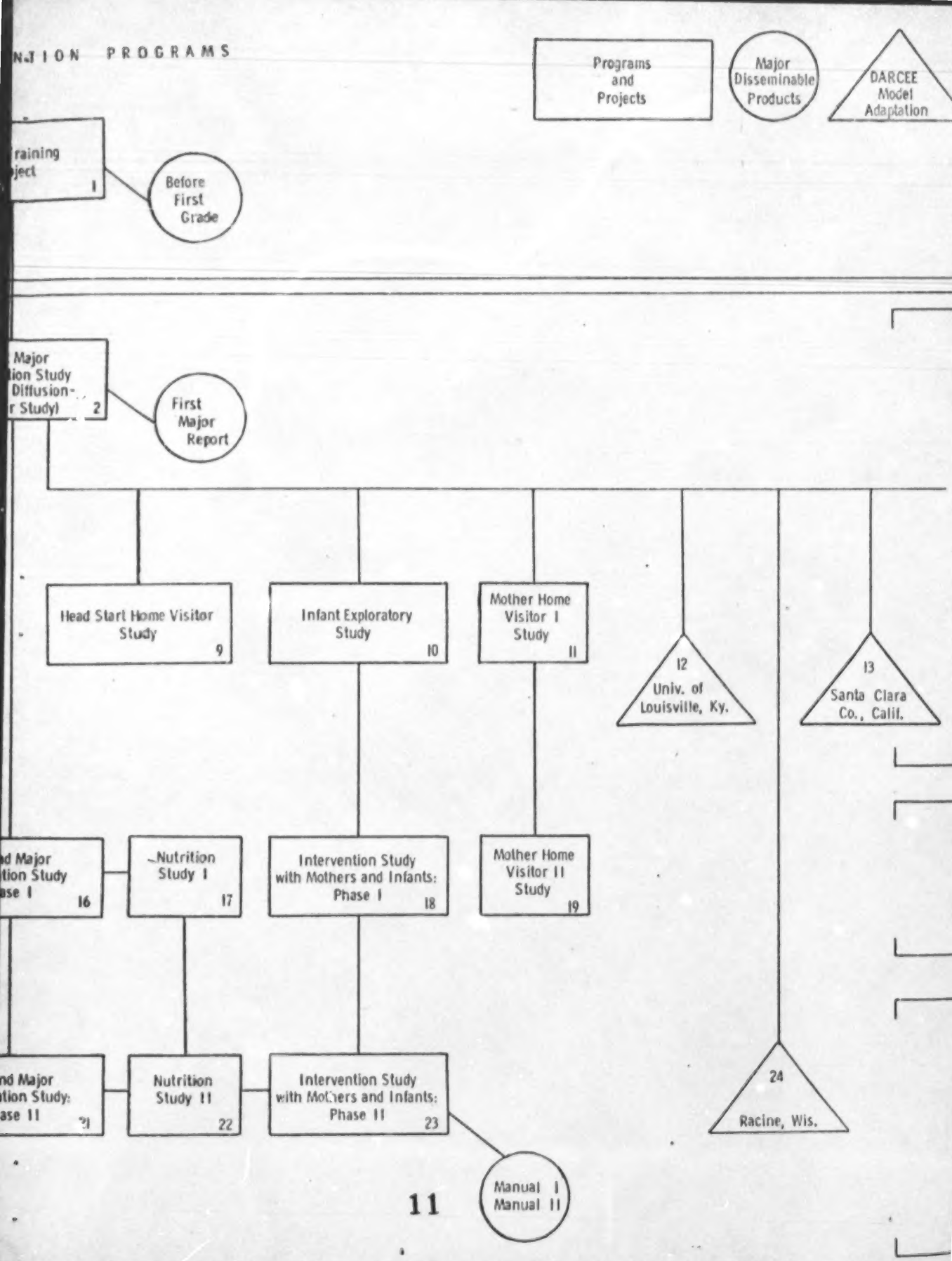
We believe that the merit of coupling a training program with our intervention programs for children lies in two things: (1) Students in centers where approaches are continually subjected to reassessment and refinement become more evaluative of their own approaches; they become more willing to try new approaches which have research back of them rather than reject them out of hand. The students know there are no final answers to the one best way to teach children or future teachers. Each must become a learner and a critic in his or her approach to early childhood education. We do not believe these students will fall prey to the gimmicky programs or the bright new bags of tricks with no theoretical rationale nor empirical data as to the efficacy; (2) Our research and development activities are continually enhanced by our need to apply them to our training program, and indeed, our need to do research upon that training program.

Our demonstration efforts obviously draw from both our training and research activities. Visitors can ask searching questions. In answering such visitors, we must justify and explain in non-technical terms the nature of our programs; we must make comparisons with other approaches; we must explain our rationale. At the same time, to the extent that we are developing approaches useful in improving the educability of young deprived children, we can meet our social responsibility by a wide dissemination of our findings.

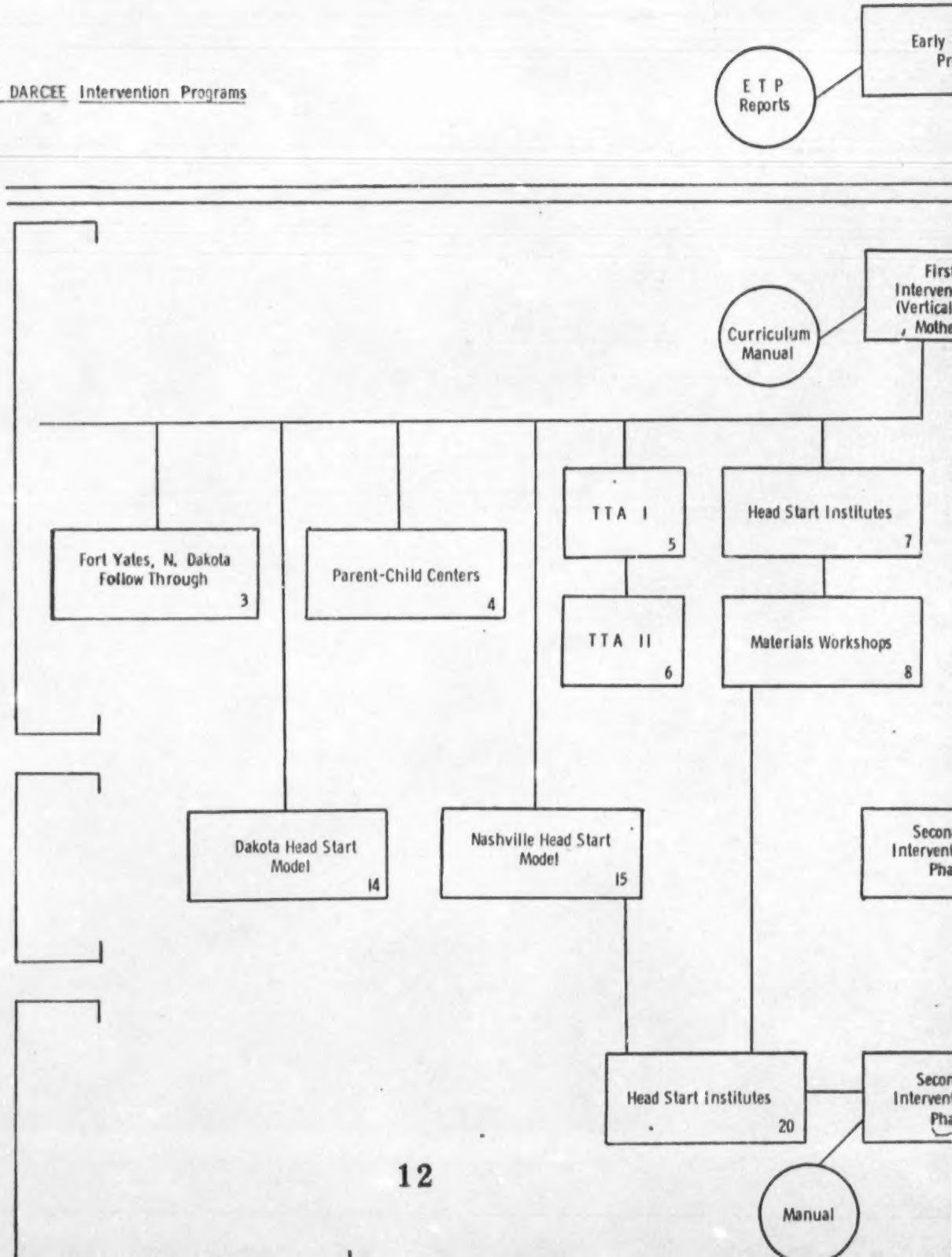
As we look back over the approximately four and one half years of funding from OEO under Grant 9174, it is difficult indeed to point out all the effects of this program, many of which we have been unable to follow because they have been carried on by other persons rather than by DARCEE. On the other hand, we see much that has been accomplished. The section on the information office describes in minute detail the written products of this funding, as well as the general activities of the information office which serves as our cheif avenue to the dissemination of our work over the years.

Some four years prior to the funding of DARCEE by the Office of Economic Opportunity, the director had become involved in a study of early intervention, the so-called Early Training Project which served to set some of the procedures used by Project Head Start, and by other intervention programs that sprang up with the funding of the ESEA. The Early Training Project has also formed the point of departure for much of the intervention work that has been pursued at DARCEE. The attached "genealogy" chart of influence illustrates well the way in which the DARCEE "model" has moved through various phases at DARCEE and in the field.

It is our hope that during the next few years we may further extend this model in the field. While this model, developed over some years, moves into the field, we wish at DARCEE to begin to look systematically at other patterns of intervention, particularly within family groups.


Programs and Projects
Major Disseminable Products
DARCEE Model Adaptation
raining ject 1
Before First Grade
Major lion Study Diffusion- r Study) 2
First Major Report
Head Start Home Visitor Study 9
Infant Exploratory Study 10
Mother Home Visitor I Study 11
12 Univ. of Louisville, Ky.
13 Santa Clara Co., Calif.
d Major tion Study ase I 16
Nutrition Study I 17
Intervention Study with Mothers and Infants: Phase I 18
Mother Home Visitor II Study 19
nd Major tion Study: ase II 21
Nutrition Study II 22
Intervention Study with Mothers and Infants: Phase II 23
24 Racine, Wis.
Manual I Manual II

Prototype for DARCEE Intervention Programs



A History of Early Training Center I

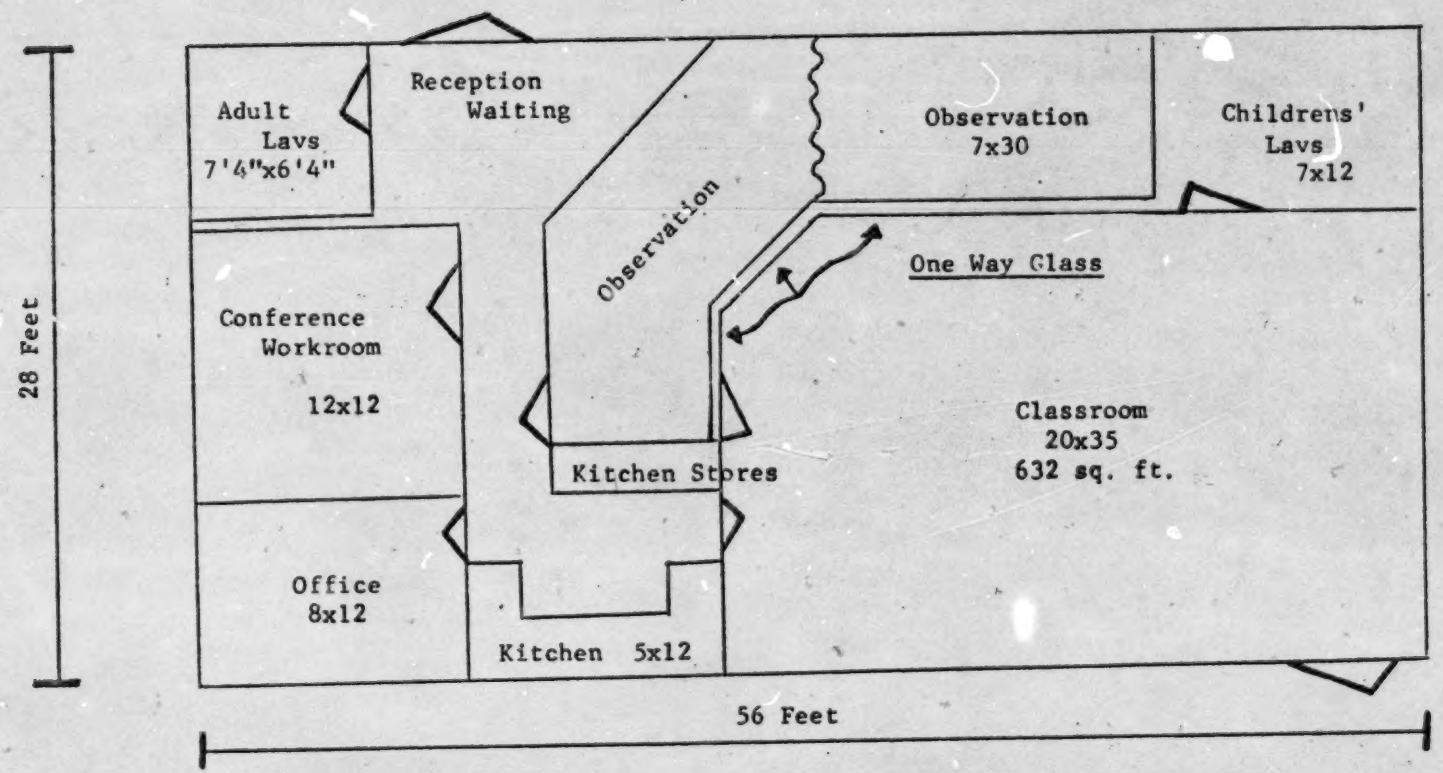
The first of the three Early Training Centers which began operation was the one built at a housing project site. This building was erected in the winter of 1966, and by mid-March the first group of children, who met four hours in the morning, began their program. Three months later the second group, who met in the afternoon began. This center continued in full operation through August, 1968. In Spetember, 1968, the children moved into a nearby public school. From September, 1968 to August, 1969, the center was used largely for two studies involving mothers and young children, where the primary focus of concern was actually on the home. During this time also we began to look for a more meaningful way to utilize this center fully. As our federal funding became somewhat curtailed, it seemed an appropriate action to see if it was possible for the service aspects of our work in the housing project to be picked up by another group. In the fall of 1969, the building and equipment were turned over to the Labor Department which, through a local group, operates now a full day care center for mothers on the Work Incentive and for the Concentrated Employment program, and for others who need day care facilities.

A floor plan of the building is given on the next page. This is a portable building approximately 56 feet. The outside construction is aluminum siding. The interior finish is in wallboard with asbestos vinyl floors. In the children's classroom, however, the walls are made of enameled peg board backed by six inches of fiberglass to provide insulation and cut down on sound as much as possible. The children's classroom is also carpeted over three-fourths of its length. The large observation area can house 25 to 30 persons comfortably. During the time of its major use it was equipped with

DARCEE -- Demonstration and Research Unit

George Peabody College

Nashville, Tennessee



appropriate audio visual materials that was possible to monitor what was going on in various parts of the classroom. This building was erected at a cost of approximately $18,000, which complete with heating and air-conditioning came to less than $10 a foot. Although the cost obviously would be more today, we believe this building represents a highly economical prototype for experimental and/or demonstration center for work with young children. It could easily be adapted, of course, to service programs, where it would be possible to cut down considerably on the observation space.

Early Training Center I was the site of our major intervention study in which three groups of approximately 20 mother-child, and younger child triads were involved over a period of two and one-half years, with additional follow on work since that time. This study is described in some detail in the attached report, Gilmer, Miller, & Gray: Intervention With Mothers and Young Children: A Study of Intrafamily Effects. This study describes in detail the general design of the study, its operation, and the results up through the first year of public schooling for the children of target-age.

The two papers attached by Christopher Barbrack describe two studies working with the mothers as home visitor trainees which took place in the year after the children entered first grade. These are: Educational Intervention in the Home and Paraprofessional Career Development: A First Generation Study and Educational Intervention in the Home and Paraprofessional Career Development: A Second Generation Mother Study with an Emphasis on Costs and Benefits. The two curriculum resource units, All About Me and Autumn, are the first of a series of eleven which will describe in some detail the curriculum which was developed in large measure at the Early Training Center I.

Because Early Training Center I was the site of our major intervention research study, we did not use this study for short time participation for trainees nor also for the majority of visitors to DARCEE. Instead, we did use the center for practice teaching, or for extended training experiences for some of our graduate students. Visitors who were themselves concerned in intervention research were welcomed, although for the most part others were directed to the two other Early Training Centers in operation. We felt that these precautions were necessary to maintain the integrity of the study itself, which was a massive one and made a major drain upon the times and efforts of the teaching staff.

The research at Early Training Center I has centered around a systematic evaluation of intervention programs. It has concerned itself primarily with the study of the effects of intervention programs not only on the children for whom the program is targeted but also upon their parents and upon the younger siblings. Although the research was not undertaken in the beginning with the direct purpose of answering questions of cost efficiency, the findings of the major intervention study and of the two studies with mothers being trained themselves to work first as home visitors and then as supervisors of home visitors, has some clear cost efficiency implications. The particular findings in this direction seem to be as follows:

(1) From the standpoint of the impact upon younger children not directly the focus of the program (the younger siblings of the study reported), a program in the home is just as effective as a classroom program for older siblings in which the mothers are also involved. (2) A program for older children in a family, without the involvement of the mothers, does not appear to have any effect upon these younger children. (3) When there is an extended period of classroom intervention for young children (in this case from 3-6 to 6-0) the

addition of involvement of the mothers does not seem to contribute materially to the immediate performance of the children. There is some evidence, only slight at this point, that the involvement of the mothers may create a sustaining effect. (4) Mothers involved in such programs can, under careful supervision and after training, function themselves effectively as home visitors, and in many cases can learn to serve as supervisors of home visitors.

A History of Early Training Center II

When the Early Training Center at our housing project site had been in operation for only a few months, the need for an additional site for research, demonstration and training became increasingly acute.

The dissemination of an innovative approach to the early education of young disadvantaged children could best be done by demonstration. The Office of Economic Opportunity had given approval for ten, eight-week institutes for the purpose of training Headstart personnel; a site for classroom participation by the trainees was a necessity. Peabody College provided space on the campus for the construction of a portable facility identical to the already functioning ETC I.

The center opened in the summer of 1966; a group of 20 five-year-olds were recruited and enrolled for a six weeks program. The children came from environments that were representative of urban deprivation. A pilot study was inaugurated with five-year-olds, evenly divided as to sex and race. The study was particularly concerned with curriculum methods and techniques, materials development, and the training of paraprofessionals to function as teachers. The summer was spent profitably in this endeavor; many kinks were ironed out and preparations for operation of our first one-year intervention program for five-year-olds were made. Children were recruited during August and pretests administered in September. The center director and lead teacher began the training of the center staff just in time to play a major role in the training of the first group of 25 institute participants. The campus center since its inception has been a veritable "bee hive" of activity.

Early Training Center II located on the Peabody College campus is now in its fifth year of operation. In contrast to the program at DARCEE's housing

project center, the intervention has been for one year only with each group of children and/or their mothers. From 1966 through 1969 the children were five-year-olds from low income homes in urban Nashville. In September, 1969 the number of public school kindergartens in the Metropolitan area greatly increased, making it possible for DARCEE to lower the age of the sample in our study. Last year and again this year all children were recruited from two public housing areas, one predominately black and the other predominately white. Last year all the children were two years away from first grade; this year, the age span is about sixteen months. For the last two years the mothers of the children have been committed to regular weekly involvement at the campus center.

Demonstration

This center, like the other two, is equipped with an observation booth with a capacity of twenty-five. The booth is enclosed with one-way glass and equipped with a sound system. Visitors can see and hear what is going on in the classroom without disturbing the program in any way. Requests for observation, particularly at the campus center, have been numerous. Our records indicate that DARCEE has approximately 1000 visitors each year from most of the 50 states and many foreign countries. Visitors may be single individuals who have a brief time for observation or an entire class who have alloted a complete day for a look at the DARCEE program in operation. Some observers are looking intensively at DARCEE as a possible program model; visitors often remain at DARCEE for several days of observation and training. Our information office has primary responsibility for guiding observers but may be assisted by other staff members, particularly the center director. Unquestionably, we have found that this center, centrally located and easily accessible,

has met a real need for literally hundreds of people from all over the country. Our colleagues in early education are seeking, as we are, a more effective way to teach young, disadvantaged children. DARCEE's curriculum can be adapted and replicated; the demonstration of a program of proven quality continues to meet a need in early education in the 70's.

Training

The campus center has a strong training mission. It has served the college as a site for training, short or long term, professional semester or practicum, graduate or undergraduate level. This center has given involvement to hundreds of interested participants; these people have gone out from DARCEE with real experience in teaching young children in an innovative way. When a trainee becomes involved in the classroom, he functions as a member of a teaching team as they plan and evaluate together. All of the programs around the country which have adopted the DARCEE model have had representatives trained in the centers; ETC II has been the primary site for training. Requests for involvement in the teaching of young, low income children are increasing. Currently Project Head Start has funded DARCEE to run a series of short-term training sessions of one, two, or three week duration; those who attend this training participate in the classroom. This year, for the first time, we plan to train volunteers who have only one day a week to be in the center. We believe the volunteer can make a real contribution to the program if an appropriate, continuing training program can be implemented. The availability in this center of video taping equipment has a high potential in a variety of training activities.

Research

This year at the campus center a major research study is in progress. It is a replication of a study that was done last year with the mothers of the children who attend the center. The objectives of the study are two-fold: (1) to help the mother to become a better education change agent for her children. (2) to study the effect of two different treatments on change in racial attitude.

Since its beginning in 1966, the campus center has provided not only the DARCEE research staff but also the university center with an accessible sample of preschool children from low socioeconomic environments. Both short and long term research studies have been done by a variety of investigators with a variety of objectives. Questions related to all phases of program implementation are asked by the teacing staff and directed to the research staff; a study is designed and carried out and the results of the research fed back into the curriculum. Instruments to assess particular aspects of our intervention techniques are designed by the research staff and then tested in the campus center. Most of our research in teacher effectiveness and trainers of teaching aides was done in the campus center. Quite properly, one might describe the function of this center as being research and development for the many aspects of DARCEE's total program.

A continuing concern for the development and refinement of a curriculum for young, low income preschoolers which is adaptable and replicable serves to focus the work of this center. Lesson plans, written and evaluated daily, are permanently filed; the staff is constantly questioning methods and techniques for implementation. Modifications in the program have been made in the last two years to meet the needs of younger children; children are given experience in making choices and in independence training from the first week of the

program. The campus center has focused on the development of materials, particularly those with which the black child can ethnically identify. The flood of commercial materials recently produced for young children is assessed as to their value as teaching tools with our particular children.

In the Early Training Center this year several changes have taken place: (1) a longer day but a slightly decreased number of weeks of intervention (2) a wider range in the ages of the children (3) a smaller staff resulting in a higher ratio of children to teachers.

Medical examinations were given to all children who have attended the campus center during its five years of operation. During the 1969-70 school year comprehensive examinations were given to the twenty children enrolled at the center in collaboration with Vanderbilt Hospital to determine the relationship of nutrition to learning. A detailed report of this study is included in the narrative of the Early Training Center at Fairview. Remedial treatment was given as indicated by the examination; referrals to other community agencies were made when a need was observed. During the five years of operation of the campus center, extensive social services have been provided by the DARCEE social worker to the families of the children enrolled.

A History of Early Training Center III

The South lags behind other regions of the United States in providing preschool or kindergarten programs for children; in rural areas, preschools of any kind are almost non-existent. Until recently, the education of the young was the responsibility of the one-room school; consolidation of schools has brought together children from the "backwoods" and those from more affluent families who live in the rural area by choice and are employed in nearby urban areas. Disadvantaged children from isolated, low income homes usually enter school one or more years behind their middle-class age mates. The public schools do not seem willing to adapt their prescribed curriculum to the children's needs so that the child who is not ready can "catch up." The result is that children whose home environment has poorly prepared them for first grade fall behind; the result is a progressive retardation. Drop-out rate is high; even high school graduation is sub-standard and many young people reach "working age" poorly prepared for any employment. Migration from the rural South to cities in the area and to the industrial areas to the north continues, taking with it the problems of poor education, minimum skills, poor health and nutrition and lack of motivation. Some of the Southern states are just beginning to support statewide kindergartens with funds and legislation. The need for a demonstration center for a rural preschool program that is adaptable and replicable was realized by the Demonstration and Research Center for Early Education at George Peabody College.

In the Spring of 1967 the site for such a rural Early Training Center was located approximately 25 miles from the college campus on the highland rim above the valley carved by the Cumberland River. This rural area of Williamson County contains very little arable land. The poor white farmers

of the area barely eke out a living from the small tobacco plots that seem to be the chief source of farm income. The Williamson County School Board agreed to provide a site for a Demonstration Center in Fairview on the grounds of the elementary school, to provide utilities to the site of the portable building, and to provide transportation, daily, one way for the children enrolled in the center. An agreement was negotiated between the Williamson County School Board and the Demonstration and Research Center for Early Education. Construction on the building was begun in the summer of 1967 and it was ready for occupancy just after the first of September.

During the summer, the staff began preparation for the opening of our rural center. Materials developed and in use with urban disadvantaged children were adapted, modified and prepared for use with rural, low income preschoolers. Curriculum objectives and content units were carefully evaluated for use with a different population. The staff for the center was recruited and trained. The task of securing children for the center was a difficult one; the social worker assumed primary responsibility but was assisted by other staff members. All available county resources were used i.e., the welfare and public health departments, the public school and the community action program . Recruiting was slow, difficult and tedious, requiring many hours and many miles; resistance was minimal, however.* The population in the area is all white; twenty five-year-olds were obtained, evenly divided by sex. The number of family members was large and the incomes were low; the families met all criteria of "disadvantaged" i.e., housing, education, health and nutrition,

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*In subsequent years, recruiting of children still took many hours, going from house to house, but was not as difficult since the community was very enthusiastic about "the kindergarten" and referrals were plentiful.

motivation, etc. Throughout the three years social services were provided by the staff social workers for the families of children enrolled at the center.

Two DARCEE buses, each covering over 20 miles of rocky, washed out, rutted roads, were required to transport the children to school. The children arrived at school at 11:15; the day ended at 2:45 when the preschoolers boarded the Williamson County School buses for their return home. During the three and one half hours at school, a schedule similar to the one at the other DARCEE Centers was followed.

We were impressed by the many similarities in the young, poor, rural child and all other children of deprived backgrounds with whom we had worked; however, IQ scores tended to be higher. Development of language was noted to be accelerated although there were many instances of regional colloquialisms. The children trusted adults; their concept of self was positive; physical coordination, particularly large muscle development, was observed. The rural child seemed to have strength in social development; there was less age-mate competition, more cooperation. The skills associated with visual and auditory perception were better developed than in the urban child, but the rural child was slow at the conceptual level of learning. The staff adapted the DARCEE curriculum to the specific needs of the individual child. Movement toward abstract mathematical concepts was possible because rote counting, one-to-one correspondence and set recognition skills were more quickly developed. The rural child is more familiar with farm animals, seasons, and plants, therefore the staff could speed up this unit sequence and spend more time on the city or our community helpers which was totally unfamiliar.

In assessing motivational techniques in terms of the "value system" of the rural child we found that like other disadvantaged children they did not value "doing well in school." However, progress through the reinforcement

schedule was much more rapid than in the urban centers so that by the third year the reinforcement procedures were adapted; concrete reinforcers were not used at all. We found that skill and attitude development can be learned as efficiently and effectively with social and verbal reinforcement alone, but at the risk of the children becoming less cooperative with each other and more competitive particularly for the teachers attention and approval.

Many curriculum areas were adapted and refined at the rural center. One innovation was in the development of auditory discrimination. The rural children, although rated higher in auditory perception skills, were found to be average for disadvantaged children when given the Goldman test for auditory discrimination and also on the articualtion test. A treatment of sound sequencing was adapted and used by the staff in both large and small group activities over a five month period. The children's ability to discriminate sound, to listen for a specific sound, (i.e., beginning consonant or ending sound) and to sequence sounds was greatly improved. As a by-product, several children learned to read by "sounding-out" words.

Each year the effectiveness of the year of intervention was evaluated using a pre and post test design. Standardized tests as well as tests developed by the DARCEE staff were administered; the results indicated that significant gains were made by the children. During the three years the center was in operation both short and long term research studies were completed. Assessment of curriculum developments were made, i.e., the effectiveness of concrete vs. social reinforcement, the rudiments of the teaching process, and the sequencing of the development of specific skills. Several basic child studies were completed as well as sociological and physical coordination studies.

Demonstration and Training

The Early Training Center at Fairview has provided a unique facility for demonstration and training. Since one and one half hours must be allowed for travel to the center, our visitors have been fewer in number than those at the center located on the Peabody campus. The observers we have had, however, were looking specifically for the demonstration of a preschool program for young, rural, disadvantaged children. Its value as a training center cannot be overestimated. During 1967-68 many Head Start directors, teachers, and aides received training at this center as a part of five, eight-week training institutes. They planned with the regular staff, had a practicum experience in the classroom as a teacher, evaluated their participation, and developed materials or investigated new and different ways of using familiar equipment and materials. For two years the rural center furnished a training experience for graduate students who functioned as demonstration assistants in the classroom usually for four weeks each; one special education graduate student worked as an assistant teacher for eight months. During the summer of 1969, twelve primary teachers and teaching assistants from Fort Yates, South Dakota, where the elementary school uses DARCEE as a "Follow Through" model, were given experience in the classroom at the rural center. In October of 1969, 21 trainers of Head Start personnel in ICAP programs in the Dakotas received training at the Fairview Center. The coordinator and the assistant coordinator of ICAP Head Start program in the Dakotas received training in the summer of 1970 for one and two weeks respectively.

During the 1969-70 school year four mothers of children enrolled at the center were trained; the objectives of the training were: (1) to help the mother to become a better educational change agent for her children; (2) to give the mothers some useful skills and techniques toward becoming teaching

assistants in the DARCEE Center; and (3) to train people in and of the community to function as day care workers. The training consisted of observation by the mothers guided by the center director during the early weeks of the program. In February, 1970, four mothers began the second phase of the program by attending fourteen, two-hour training sessions at the center. During this phase, the mothers began participation in the classroom at specified periods of the day and then for an entire day the mother assumes complete responsibility for a small group of children, under the supervision of the lead teacher. During May, each of the mothers taught for one full week, relieving a regular demonstration assistant and receiving pay for a week's work. During the summer, three of the mothers worked as substitute teachers for about two weeks each. We are pleased to report that three mothers are now supervising the training of other mothers of children enrolled in a cooperative child care program under the auspices of the local Community Action Program.

Nutrition Study

The concern that we, as well as many other educators, feel toward the possible effects of malnutrition on mental development can be readily understood in view of the great number of deprived children in this country. Poverty tends to breed malnutrition which may, in turn, limit not only a child's physical growth but have an effect on his eventual level of mental maturation. To be able to form some judgment as to how nutrition influences the educability of young children a collaborative study was proposed.

In June of 1969, DARCEE and the Division of Nutrition at Vanderbilt University began a pilot study at our rural Early Training Center. The nutritional status of the 20 rural children enrolled was examined. A dietary study was completed; dental, clinical, nutritional, and general physical examinations were performed. Anthropometric measurements were recorded; biochemical parameters

of nutritional status were studied in both blood and urine. A medical history of each child since birth was collected by contacting all the doctors or clinics that had examined the child at any time. A "growth development" picture was formed. During the 1969-70 school year 40 children, in the rural center and the campus center, were a part of a larger more comprehensive nutritional study. Remedial work, as indicated by the examination, was received. The data has been collected; the report of the preliminary finding is now available.

As of this date, the Early Training Center located at Fairview is not in operation. It is DARCEE's hope that the facility, fully equipped, be reassigned to the Community Action Program in Williamson County to be used as a year-round Head Start Center for young children and their families and as a training site for Head Start personnel. A proposal has been submitted to the Office of Child Development regional office in Atlanta by the Williamson County Community Action Program; the status of the proposal is not known.

The Information Office

DARCEE's information office has had joint support from the Office of Economic Opportunity and the Office of Education. Approximately one-third of this support over the years has been contributed from Grant 9174. The Information Office serves as one of the chief vehicles through which DARCEE makes its findings available to the general public and to other researchers in the early childhood area. It is the DARCEE instrument which attempts to close the gap between research and practice, to facilitate the exchange of information among professionals, to tie together the various DARCEE projects, and to insure documentation of DARCEE research.

To meet these rather broad objectives, the activities of the information office have covered three major areas: publications and publicity, photography, and visitor traffic. From July 1, 1966 to August 31, 1970, DARCEE has distributed 59,116 pieces of literature, has had 4,639 visitors, and has continued to meet an increasing demand for presentations to lay groups and for papers to professional meetings.

Publications and Publicity

DARCEE literature is both general and specialized. General materials distributed by DARCEE for the period July 1, 1966 to August 31, 1970 have been as follows:

Title	Number Distributed
DARCEE--Annual Report. Office of Education/National Laboratory, June 1, 1968-May 31, 1969. 1969.	83
**DARCEE Diagram.	2344
*DARCEE general brochure, 1966.	3000
*DARCEE flyer.	594

Title	Number Distributed
**DARCEE Newsletters.	
Vol. 1, No. 1, April, 1967.	1500
Vol. 1, No. 2, October, 1967.	1700
Vol. 1, No. 3, February, 1968.	1799
Vol. 1, No. 4, June, 1968.	1930
Vol. 1, No. 5, October, 1968.	2164
Vol. 1, No. 6, February, 1969.	2000
Vol. 1, No. 7, January, 1970.	3000
*DARCEE training program (an excerpt from the general brochure)	369
*General Brochure, 1968.	2575
**Information Sheet, ETC I.	2000
**Information Sheet, ETC II.	3065
*Information Sheet, ETC III.	793
*Meet Anthony's Brother (Training Pamphlet) December, 1968.	2566
*OEO 1969 Annual Progress Report.	90
*Picture Book of DARCEE	2000
**Scripts for Slide Sequences.	
Teaching Number Concepts.	123
DARCEE Overview.	225
A Training Program for Mothers.	125
What's Inside of Me.	77
*Training Brochure-Fall, 1966.	500
*Training Folder-December, 1967.	2700
*Training Brochure, 1969-70.	2930

Specialized literature receiving distribution during the same period is as follows:

Author and Title	Number Distributed
Aldous, Joan. Children's perceptions of adult roles as affected by class, father-absence and race. (DARCEE Papers and Reports, Vol. 3, No. 4, 1969).	390
**Barbrack, Christopher R. The effect of three home visiting strategies upon measures of children's academic aptitude and maternal teaching behaviors. (DARCEE Papers and Reports, Vol. 4, No. 1, 1970).	480

Author and Title	Number Distributed
*Barbrack, Christopher, and Horton, Della M. Educational intervention in the home and paraprcfessional career development: A first generation mother study. (DARCEE Papers and Reports, Vol. 4, No. 3, 1970.)	425
*Barbrack, Christopher R. and Horton, Della M. Educational intervention in the home and paraprofessional career development: A second generation mother study with an emphasis on costs and benefits. (DARCEE Papers and Reports, Vol. 4, No. 4, 1970.	444
**Brown, Ellen. A study in ecological psychology: The behavior objects used by three-year-old children from three income groups. (DARCEE Papers and Reports, Vol. 3, No. 6, 1969.)	536
**Camp, Janet. Unit Manual One: All About Me. Curriculum Guide, 1970.	
**Camp, Janet. Unit Manual Three: Autumn. Curriculum Guide, 1970.	
Carter, James, Gilmer, Barbara, Vanderzwaag, Roger, and Massey, Katherene. Health and Nutrition in Disadvantaged Children and Their Relationship with Intellectual Development. A collaborative report with Vanderbilt School of Medicine. (DARCEE Papers and Reports, Vol. 4, No. 7, 1970.)	
**Cupp, Janet (Camp). An instructional program for three and four-year-old disadvantaged children. Paper delivered at the Fourth International CEC Convention, St. Louis, March 26-April 1, 1967. (DARCEE Papers and Reports, Vol. 2, No. 1.)	977
Farber, Anne E. A Comparison of the Effect of Verbal and Material Reward on the Learning of Lower Class Preschool Children. (DARCEE Papers and Reports, Vol. 4, No. 8, 1970.)	
*Giesy, Rosie. Dakota Head Start: A picture story. August, 1970.	1480
Giesy, Rosemary (Ed.). A Guide for Home Visitors. 1970	
**Gilmer, Barbara. Intrafamily diffusion of selected cognitive skills as a function of educational stimulation. (DARCEE Papers and Reports, Vol. 3, No. 1, 1969)	565
**Gilmer, Barbara, Miller, James O., and Gray, Susan W. Intervention with Mothers and Young Children: A Study of Intrafamily Effects. (DARCEE Papers and Reports, Vol. 4, No. 11, 1970.)	
**Gray, Susan W. Intervention with mothers and young children: The focal endeavor of a research and training program. Delivered at Peabody-NIMH Conference on Social-Cultural Aspects of Mental Retardation, June 10, 1968.	287

Author and Title	Number Distributed
**Gray, Susan W. Selected longitudinal studies of compensatory education: A look from the inside. APA Sumposium, 1969.	330
Gray, Susan W., and Klaus, R. A. Deprivation, development and diffusion. Presidential address, Division of School Psychologists, APA, New York, September 4, 1966. (DARCEE Papers and Reports, Vol. 1, No. 1.)	1102
**Grey, Susan W. and Klaus, R. A. The early training project: A seventh year report, 1969. To be published in Child Development.	715
Gray, Susan W., and Klaus, R. A. An experimental preschool program for culturally deprived children. Child Development, 1965, 36(4), 887-898.	483
**Gray, Susan W., and Miller, James O. A training program for mothers of deprived children--a study of vertical diffusion of treatment effect.	129
**Gray, Susan W., and Miller, James O. Early experience in relation to cognitive development. Review of Education Research, December, 1967. (DARCEE Papers and Reports, Vol. 2, No. 2.)	420
**Gray, Susan W., Miller, James O., Hinze, Richard H., and Schoggen, Maxine. Research, change, and social responsibility: An illustrative model from early education. (DARCEE Papers and Reports, Vol. 2, No. 3, 1967.)	932
Grimmett, Sadie M. The influence of ethnicity and age on solving twenty questions. Collaborative research done at DARCEE and ACEE (Tucson, Arizona).	432
*Horton, Della M. A training program for mothers. Paper delivered at the Fourth International CEC Convention, St. Louis, March 26-April 1, 1967. (DARCEE Papers and Reports, Vol. 2, No. 1.)	1131
**Klaus, Rupert A. and Gray, Susan W. The early training project for disadvantaged children. A report after five years.	480
**Miller, James O., Forrester, Bettye J., Gilmer, Barbara and Cupp, Janet. A study of older siblings in a preschool intervention project. (DARCEE Papers and Reports, Vol. 1, No. 2, 1966.)	271
Mumbauer, Corinne C. Resistance to temptation in young Negro children in relation to sex of the subject, sex of the experimenter and father absence or presence. (DARCEE Papers and Reports, Vol. 3, No. 2, 1969.)	443

Author and Title	Number Distributed
Mumbauer, Corinne C. Socioeconomic background and cognitive functioning in preschool children. Child Development, 41(2), June, 1970. (DARCEE Papers and Reports, Vol. 3, No. 5, 1969.)	500
Mumbauer, Corinne C. Influence of subject and situational variables on the persistence of first grade children in a test-like situation. (DARCEE Papers and Reports, Vol. 4, No. 12, 1970.)	
Mumbauer, Corinne C. Reexamining variables affecting cognitive functioning in preschool children: A follow-up. DARCEE Papers and Reports, Vol. 4, No. 10, 1970.	
Mumbauer, Corinne C. Socioeconomic background and cognitive functioning in fourth-grade children. DARCEE Papers and Reports, Vol. 4, No. 9, 1970.	
**O'Malley, J. Michael. Performance on the Sigel Concept Sorting Task under open field and structured presentation methods.	102
Phillips, Judith. The effects of the examiner and the testing situation upon the performance of culturally deprived children. (DARCEE Papers and Reports, Vol. 1, No., 3, 1966.)	251
*Rubow, Carol. The effectiveness of three training methods for teacher aides working in preschool classrooms. (DARCEE Papers and Reports, Vol. 2, No. 4, 1968.)	562
Schoggen, Maxine. An ecological study of three-year-olds at home. (DARCEE Papers and Reports. Vol. 3, No. 7, 1969)	550
**Scott, Myrtle. Grapheme-phoneme correspondence in beginning reading of disadvantaged five-year-olds. (DARCEE Papers and Reports, Vol. 4, No. 2.)	356
**Scott, Myrtle. Some parameters of teacher effectiveness as assessed by an ecological approach. (DARCEE Papers and Reports, Vol. 3, No. 3, 1969.)	460
**Scott, Myrtle. Teacher effectiveness: a position. (DARCEE Papers and Reports, Vol. 3, No. 8, 1969)	440
**Shaw, Jean, and Schoggen, Maxine. Children Learning. 1969.	1500
**Stevens, Joseph. Instructional materials and their use in an early training center. Paper delivered at the Fourth International CEC Convention, St. Louis, March 26-April 1, 1965. DARCEE Papers and Reports, Vol. 2, No. 1.	577

Author and Title	Number Distributed
**Stevens, Joseph. Reflectivity and impulsivity in disadvantaged preschool children. Paper presented at Southeastern Psychological Association, Atlanta, April 13-14, 1967.	136
**Strain, Barbara A. Developmental trends in the selective perception of race and affect by young negro and caucasian children. DARCEE Papers and Reports, Vol. 4, No. 5, 1970.	110
*Wickens, David (Ed.). Southeastern Regional Conference on Certification of Preschool Personnel: Problems and Precedents. May, 1969.	446
*Wickens, David (Ed.). Training paraprofessionals as team members. Southeastern Regional Conference on Certification of Preschool Personnel, May, 1969.	442
**Barbrack, Christopher R., Gilmer, Barbara R., and Goodroe, Paula C. Information on intervention programs of the Demonstration and Research Center for Early Education. (DARCEE Papers and Reports, Vol. 4, No. 6, 1970.)	

* Papers supported entirely by OEO

** Papers in which some portion of support was from OEO.

During the period of July 1, 1966 to August 31, 1970, the DARCEE mailing list has grown to 1625. This list is maintained on coded McBee cards, with recipients categorized according to their interests.

Among the periodicals in which DARCEE has received coverage are the Southern Education Report (January-February, 1967), the Tennessee Psychologist (May, 1967), The Tennessee Teacher (March, 1970) and American Education (August-September, 1970). Research grants, information about DARCEE's training institutes, and its work as a model in the Dakotas have been reported in the local press. DARCEE has also figured prominently in publicity of the Kennedy Center on Research in Education and Human Development. This coverage had included both newspapers and television in Nashville.

Photography

The Information Office has continued to photograph the DARCEE program in action and maintains color slides and black and white pictures on file. The black and white photographs, stored in a negative file which has grown to 63 rolls of 120 film and 81 rolls of 35mm with corresponding proof sheets, are used in publications or for publicity. Color transparencies, filed numerically with a corresponding brief description and a categorical cross-index to facilitate ease of use, number 2966. Staff members make frequent use of these slides to document and illustrate the DARCEE program for groups of lay and professional people.

DARCEE also distributes four prepared slide sequences which have corresponding scripts and are available upon request. These are used by people in speaking to college classes, training institutes and professional meetings. These slide presentations have been used by 124 groups across the United States.

Visitors

Since our program departs somewhat from traditional approaches to early education, we have felt it was particularly important to provide visitors to DARCEE with a guide who was well trained to explain the DARCEE program and to answer questions of visitors. These visitors come from varied professional training and occupations and represent most of the 50 states. In addition, appointments are made as appropriate with various staff members, in terms of the interests of the particular visitor. This is obviously time consuming, and expensive from the standpoint of personnel. We have felt, however, that it was extremely important from the standpoint of its potential impact upon the field of work with young children. We have been fortunate enough to have been provided funds through our Office of Economic Opportunity grants and our Office of Education contract to take care of the immediate cost of the information office and its staff.

The 4,639 visitors to DARCEE have included many foreign visitors. England, Scotland, Ireland, Canada, Uruguay, Korea, and South Vietnam are only a few of the foreign countries from which we have received visitors.

During the past year, the typical DARCEE visitor has grown more sophisticated in nature and has been interested in a more in-depth introduction to DARCEE. As a result, groups have visited over a longer period of time and have had extensive conferences with DARCEE staff members.

The dissemination and information activities are a continuing DARCEE project; they serve to diffuse all aspects of the DARCEE endeavor.

A Final Word

Has it been worthwhile? A great deal of money has been spent by OEO in funding DARCEE under Grant 9174. Many people have devoted much time to working on the various projects that have been funded under this grant.

Whether it was all worthwhile can be answered better after some years have gone by. Our answer at present, however, is a qualified yes.

In the first place, a great deal of direct service has been rendered under this grant. We have worked intensively with 135 families in periods varying from 8 months to 2 1/2 years. Most of these families (with the exception of 25 mothers of infants) were families with several children present in the home. In addition, 140 children have been enrolled in DARCEE classroom programs for periods of one year each.

The report of the dissemination office gives a good picture of the broader impact of DARCEE beyond the direct service, which was rendered largely as a means to an end--to demonstrate, to do research, and to train individuals to be able to promote the educability of young children from low income homes. The many things we have written, the public presentations we have made, and above all the 4500 visitors who have spent time at DARCEE, often in considerable depth, suggest some of the potential impact upon the field.

The work we have done on the diffusion of training effects within a family, and above all, our work with parents have suggested for us models for training which have much to recommend them from the standpoint of cost efficiency. Working with one mother has impact upon all of her children. In addition the mother herself serves as sustaining agent for her children after intervention ceases.

It is our hope as we look forward to 1971 and beyond that what we have learned at DARCEE in the last five years in terms of developing curricula for young children, and in working with family groups, may be used effectively in many programs to further the educational and social competence of young children.